

Wheel Wash Guidance Document

Introduction:

The process of wheel washing leads to the creation of contaminated effluent, which can pose a threat to the environment if not correctly managed. Wheel wash effluent is highly polluting, as it comprises water contaminated with detergents and particles washed away from vehicles (dust, oils, soil, paints, rust, etc). It also gathers any pollutants present on the surface while flowing to the drains.

Design Considerations:

In order to protect the environment, vehicle wash effluent must be prevented from reaching surface water drains, via which pollution of local water courses can occur, or from leaching into the soil, where groundwater pollution and/or land contamination can occur.

- Vehicles must be washed in designated areas which are isolated from surface water drainage systems, unmade ground and porous surfaces.
- Designated wheel wash areas should be designed so that run-off is isolated using channels and gullies and directed to a silt trap or settlement tank to remove larger particles of silt and sediment.

Sealed systems:

There are generally two types of sealed system available: those where the wash effluent is collected in a sealed system for reuse; and those where the effluent is collected for authorised disposal. As a general rule, recycling the effluent and reusing the water is the best environmental option for dealing with wheel wash effluent. Washing equipment that utilises a collection or reuse/recirculation process can be considered. However these systems usually require regular, off-site removal of water, silt or sludge, so environmental permitting legislation will usually apply.

Where a sealed system is used which requires authorised disposal, it is necessary to check that the waste management company is permitted to carry and dispose of this type of waste.

Connecting and discharging to public foul sewers:

In many cases, discharging wheel wash effluent to a public foul sewer is a practical solution as the effluent will be carried to a purpose-built and closely monitored sewage treatment plant. There is usually a cost involved and the size of this is dependent upon the volume and chemical composition of the effluent being disposed of.

However, it should be noted that permission (a consent or agreement) is not given automatically, so the sewerage undertaker must be contacted early on in the planning process. Discharging to public foul sewers without appropriate consent is illegal and likely to result in a fine. It may also be worth considering covering the designated washing bay to prevent clean rainwater adding to the volume of effluent and therefore the cost. Another point to bear in mind is that some sewerage undertakers stipulate that an oil separator will be required within the design.

Control Measures

- Use equipment that minimises the use of water and detergents and the generation of solid waste.
- Provide notices for designated washing areas by saying what they are for and that washing and cleaning should only be carried out in the designated bay(s).